New Energy Opportunities, Inc.

Barry J Sheingold
President

October 4, 2011

2011 OCT 11 P 2:16
PUBLIC UTILITIES COMMISSION

The Honorable Chairman and Members of the
Hawaii Public Utilities Commission
465 South King Street, First Floor
Kekuanoa Building
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2007-0331
Hawaiian Electric Company Renewable Energy RFP
Independent Observer Report

New Energy Opportunities, Inc., the Independent Observer for Hawaiian Electric Company's Renewable Energy RFP, respectfully submits its report on Hawaiian Electric Company's negotiation and execution of a power purchase agreement with Kawailoa Wind, LLC ("Kawailoa Wind") dated September 21, 2011. The Kawailoa Wind Power Purchase Agreement was executed by HECO as a result of the Renewable Energy RFP. HECO has filed an application for approval of this contract in Docket No. 2011-0224. The report also includes an overall assessment of the RFP process and recommendations for future improvements.

Sincerely,

Barry J. Sheingold

cc: Hawaiian Electric Company, Inc. (with attachment)
Division of Consumer Advocacy (with attachment)

10 Speen Street • Framingham • MA 01701 • *Tel:* 508-665-5888 • *Fax:* 508-665-5858 • *Email:* bjs@newenergyopps.com

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

DOCKET NO. 2007-0331

In the Matter of
PUBLIC UTILITIES COMMISSION

Instituting a Proceeding
Related to a Competitive
Bidding Process for Renewable
Energy on Oahu

REPORT OF THE INDEPENDENT OBSERVER ON HAWAIIAN ELECTRIC COMPANY'S NEGOTIATION AND EXECUTION OF A POWER PURCHASE AGREEMENT WITH KAWAILOA WIND, LLC, OVERALL ASSESSMENT OF THE RFP PROCESS, AND RECOMMENDATIONS FOR FUTURE IMPROVEMENTS

October 4, 2011

PREPARED BY:
New Energy Opportunities, Inc.

TABLE OF CONTENTS

I. Overview

Pursuant to the Hawaii Public Utilities Commission's Framework for Competitive Bidding ("Framework"),[1] New Energy Opportunities, Inc. ("NEO"), the Independent Observer ("IO") for Hawaiian Electric Company, Inc.'s 2008 Renewable Energy Request for Proposals ("Renewable Energy RFP"),[2] hereby submits its report on Hawaiian Electric Company's negotiation and execution of a Power Purchase Agreement with Kawailoa Wind, LLC ("Kawailoa Wind") dated September 21, 2011 (the "Kawailoa Wind PPA" or "the PPA") for the purchase of the electrical output from a planned 69 MW wind energy project located on the North Shore of Oahu. Hawaiian Electric Company, Inc. ("HECO") issued the Renewable Energy RFP in June 2008 seeking proposals for the supply of up to approximately 100 MW of renewable energy resources to serve the island of Oahu under long-term power purchase agreements. On September 23, 2011, HECO filed its application with the Public Utilities Commission of the State of Hawaii ("Commission") for approval of the Kawailoa Wind PPA.[3] The Kawailoa Wind PPA is the second power purchase agreement executed by HECO as a result of the Renewable Energy RFP. In February 2011, HECO executed a power purchase agreement with Kalaeloa Solar Two, LLC ("Kalaeloa Solar") for the output produced by a 5 MW solar photovoltaic project. Recently, the Commission approved the Kaleloa Solar PPA, as amended.[4]

Where an Independent Observer is appointed to monitor a competitive bidding process under the Framework, the IO is required to report to the Commission on monitoring results during each stage of the competitive process.[5] The IO participated in the process leading up to the issuance of the RFP, advising HECO regarding the RFP design and submitting comments with respect to both the draft RFP and the final proposed RFP, which was subsequently approved by the Commission.[6] The next stage of the competitive bidding process involved preparation of a detailed protocol for the evaluation of bids, receipt of bids, evaluation of the bids, and the decisions regarding which bids to short list. On January 23, 2009, the IO submitted a report pertaining to this stage of the competitive procurement process, which included a confidential appendix that addressed HECO's

---

[1] Decision and Order No. 23121, Docket No. 03-0372, Exhibit A (Dec. 8, 2006).

[2] See Order No. 23699, Docket No. 2007-0331 (Oct. 9, 2007) at 13-15.

[3] Application, In the Matter of the Application of Hawaiian Electric Company, Inc. for Approval of Power Purchase Agreement for As-Available Renewable Energy With Kawailoa Wind, LLC, Docket No. 2011-0224 (hereinafter "Application").

[4] Decision and Order, Docket No. 2011-0051 (September 22, 2011). This power purchase agreement was amended in July 2011 to incorporate a reduction in PPA rates in the event the seller claimed the 35% non-refundable state tax credit instead of the 24.5% refundable state tax credit.

[5] Framework, Section III.C.2.b(vi). Reporting is to be done "sufficiently early so that the Commission can correct defects or eliminate uncertainties without endangering project milestones." *Id.*

[6] Comments of the Independent Observer Regarding Hawaiian Electric Company's Final, Proposed Request for Proposals (May 19, 2008) and Supplemental Comments and Recommendations of the Independent Observer Regarding Hawaiian Electric Company's Final, Proposed Request for Proposals (June 18, 2008); Letter order approving issuance of RFP, Docket No. 2007-0331 (June 18, 2008) http://www.heco.com/vcmcontent/GenerationBid/HECO/CommissionLetter.PDF.

treatment of particular bids (hereinafter, "Short List Report").[7] On November 13, 2009, the IO submitted a report pertaining to HECO's selection of the final award group, which also included a confidential appendix.[8] On March 11, 2011, the IO submitted a report on HECO's negotiation and execution of the PPA with Kalaeloa Solar.[9]

This report summarizes the IO's monitoring of the contract negotiations with Kawailoa Wind that have resulted in the PPA for which HECO is seeking approval as well as the conduct of the RFP pertaining to the PPA after the selection of the final award group.[10] As this is the last power purchase agreement that HECO intends to execute as a result of the Renewable Energy RFP, this report also includes the IO's overall assessment of whether the goals of the RFP were achieved along with recommendations for improving future competitive bidding processes, as required by the Framework.[11]

For the reasons set forth in this report, the IO concludes that the process by which HECO negotiated and executed the Kawailoa Wind PPA with Kawailoa Wind, while lengthy and not precisely as prescribed in the RFP, was materially in accord with the RFP and the Framework.

II. The Kawailoa Wind PPA

A. The Kawailoa Wind Project Proposal—From Initial Proposal to PPA

There were many twists and turns from the initial proposal submitted to HECO in September 2008 to the project to be built under the Kawailoa PPA, including a change in project ownership. This section of the report summarizes the history of HECO's consideration of the Kawailoa project proposal.

1. Kawailoa Wind Proposal and HECO Short Listing Decision

In September 2008, a large wind energy development company ("the Original Kawailoa Bidder") submitted a proposal for a 70 MW wind farm located on land to be leased from Kamehameha Schools in the Kawailoa area of Oahu. The project consisted of a 70 MW base proposal that would interconnect 50 MW to the Waialua-Kuilima line and 20 MW to the Waialua-Kahuku line on Oahu's north shore. The Original Kawailoa Bidder also submitted an alternate proposal for 50 MW which would interconnect only to HECO's 46 kV Waialua-Kuilima line. Based on information on transmission constraints on the north shore area provide by HECO in the September 2007 Solicitation of Interest ("SOI"), there

[7] Report of the Independent Observer on Hawaiian Electric Company's Bid Evaluation and Short List Selection Process—Renewable Energy RFP (Jan. 23, 2009).
[8] Report of the Independent Observer on Hawaiian Electric Company's Selection of the Final Award Group—Renewable Energy RFP.
[9] Report of the Independent Observer on Hawaiian Electric Company's Negotiation and Execution of a Power Purchase Agreement with Kalaeloa Solar Two, LLC (March 11, 2011).
[10] Monitoring contract negotiations is one of the roles of the IO. Framework Section III.C.2.b(iv).
[11] Framework Section III.C.2.a(iv).

was estimated to be approximately 50 MW of capacity available on the Waialua-Kuilima line and another 50 MW of available capacity on the Waialua-Kahuku line, of which 30 MW was subject to being utilized by the 30 MW Kahuku wind project that was grandfathered from competitive bidding.[12] The proposal appeared to reflect the bidder's understanding of the available transmission capacity for the two lines in the north shore area adjusted for the 30 MW grandfathered Kahuku wind project.

The projected commercial operation date was December 2013, although the bidder indicated that there was a potential for moving this date up by up to 12 months if permitting could be expedited.

The Kawailoa project proposal provided pricing for meeting all requested levels of performance standards in the RFP and included pricing both with and without a battery energy storage system. Pricing to meet the highest levels of performance standards, which included the provision of battery energy storage, was substantially higher than pricing to meet the lower levels of performance standards, which did not include battery storage.

The project's estimated energy output, and project capacity factor, was based on a wind resource assessment, which, in turn, was based on one year of wind data obtained from monitoring equipment located in Kahuku (which had been obtained from HECO) and use of a specified wind turbine in widespread commercial use. The Original Kawailoa Bidder indicated that there was moderate uncertainty in the estimate because the data was not collected at the site and there was only one year of local data. However, the bidder indicated that it had taken into consideration this uncertainty in its energy production estimates and planned to collect on-site wind data.

As noted in several earlier IO reports, the proposals submitted pursuant to the 2008 Renewable Energy RFP included proposals to build wind farms on two neighboring islands that involved construction of a submarine cable to deliver the output of the proposed wind farms to Oahu, each having several hundred MW of nameplate generating capacity. Under the terms of the RFP, proposed contracts involving in excess of 100 MW of electrical output were non-conforming (although they would be considered under specified criteria).[13] On October 20, 2008, HECO and its utility affiliates entered into an Energy Agreement with the Governor of Hawaii, the State Department of Business, Economic Development and Tourism, and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs as part of the Hawaii Clean Energy Initiative. Under the Energy Agreement, HECO committed with the assistance of the State of Hawaii to integrate up to 400 MW of wind power into the Oahu electrical system that would be produced by one or more wind farms located on either the island of Lanai or Molokai and transmitted to Oahu via submarine cables.[14] HECO also agreed to work with

[12] SOI at 15, http://www.heco.com/vcmcontent/GenerationBid/HECO/HECONon-FirmRenewableSOI.pdf. During the RFP process, bidders were made aware that HECO reached agreement on a term sheet with a 30 MW wind farm developer in the Kahuku area that was grandfathered from competitive bidding. Letter from William A. Bonnet, HECO to the Commission dated September 2, 2009, which was posted on HECO's Renewable Energy RFP website.

[13] RFP Section 2.7.

[14] http://hawaii.gov/gov/news/files/2008/october/State-HECO%20Energy%20Agreement%2010.20.08.pdf.

the two developers of these "Big Wind" projects to "bifurcate their project proposals from the ongoing Oahu RE RFP."[15]

Following announcement of the Energy Agreement, HECO (and the IO) ceased evaluation of the proposed neighbor island or "Big Wind" projects in the context of this RFP since, pursuant to the Energy Agreement, these bids would be evaluated in a separate process.[16] As a consequence of the foregoing, there were fewer bids that remained for the initial evaluation in this RFP.

In December 2008, HECO shortlisted four bids (one was conditionally shortlisted), including the Kawailoa project proposal. On January 23, 2009, the IO submitted a report to the Commission on the short list selection process.[17]

2. Sale of the Project to First Wind; HECO Final Award Decision

Early in 2009, the Original Kawailoa Bidder informed HECO that it was in discussions to transfer the Kawailoa project to First Wind, the developer of the nearby 30 MW Kahuku Wind Project and the developer and owner of the 30 MW Kaheawa wind project on Maui. In March 2009, the Original Kawailoa Bidder transferred its project proposal to First Wind.[18] In doing so, First Wind adopted the Original Kawailoa Bidder's commercial proposal. After conducting an evaluation of the pluses and minuses of substituting First Wind for the Original Kawailoa Bidder, HECO accepted First Wind as the new developer for the Kawailoa project, determining that it did not change its short listing decision.

The RFP provided that after short listing, HECO would conduct a detailed evaluation of the bids, which would include an evaluation of the measures that it could take itself in combination with different measures generators would take to arrive at an optimal approach to maximize the integration of renewable energy on Oahu.[19] In the RFP, bidders were requested to provide a variety of proposals based on meeting different degrees of maximum ramp rate and frequency regulation requirements. HECO's decision as to which proposal or proposals to accept would depend on technical and economic studies it would conduct.

---

[15] Energy Agreement ¶3. "The bifurcated RFP process to evaluate and select the best Big Wind project or projects will be led by Hawaiian Electric, with support from the State. Selection is contemplated to be conducted in conformance with the Competitive Bidding Framework using data submitted by developers in September 2008."

[16] In November 2010, the Commission found that the Big Wind project proposals were not properly being considered under the Competitive Bidding Framework, although waivers were conditionally granted. Decision and Order, Docket No. 2009-0317 (November 18, 2010). Subsequently, the Commission found that the term sheet for the 200 MW proposed Castle & Cooke wind farm on Lanai met the waiver conditions, but that the waiver conditions were not met for the Molokai portion of the Big Wind project, resulting in the Commission's decision directing HECO to submit a draft RFP for a minimum of 200 MW of renewable energy for delivery to the island of Oahu. Order Denying HECO's Request and Directing HECO to Submit a Draft RFP Pursuant to Framework, Docket No. 2009-0327 (July 14, 2011).

[17] Report of the Independent Observer on Hawaiian Electric Company's Bid Evaluation and Short List Selection Process—Renewable Energy RFP, Docket No. 2007-0331.

[18] While we are unaware that any specific reason was given by the Original Kawailoa Bidder regarding the reason for transferring the project to another developer, it appears consistent with a public stated objective to focus on large wind projects in mainland North America.

[19] RFP Section 2.2, pp. 9-10 and Section 4.6, p. 30.

> These integration challenges can be addressed by various approaches. One such approach would be to have all renewable energy providers incorporate design features into their projects that can address all of the system integration requirements identified by the utility. Such features could include adherence to strict performance standards, installation of equipment and technology to mitigate fluctuations such as power conditioning equipment, installation of energy storage devices, self-curtailment of output, and enhanced forecasting ability.
>
> The contrasting approach would be for the utility to incorporate grid side mitigation measures such as operating with higher levels of regulating reserve, operating its units in non-economic dispatch modes, installing energy storage devices, and installing more quick start and fast response generation.
>
> The optimal solution to this integration challenge is to involve some level of cooperation and contribution from both the suppliers and the utility, in arriving at a combination of technical and operating procedures that maintain system reliability at a reasonable cost to customers. . . . This RFP is structured to encourage Bidders to provide varying levels of pricing associated with meeting corresponding levels of performance standards. At the same time, HECO has been analyzing and preparing different cost models for operational and other modifications to accommodate differing levels of performance standards that Bidders may be able to provide.[20]

However, the technical studies and planning that would have been required to achieve this optimization approach based on utility grid side measures in conjunction with different levels of developer investments to meet different levels of performance standards did not materialize at this stage of the bid evaluation and selection process. There were several reasons for this. At about the same time the bid short listing decisions were being made in December 2008, HECO was negotiating the "Big Wind Agreement." HECO told the IO that as part of this effort, HECO would conduct system integration studies to consider measures necessary for integrating large amounts of intermittent energy into HECO's system and that the studies would not be completed within the timeframe for the 2008 Renewable Energy RFP. As a result, HECO conducted qualitative assessments of the feasibility of grid side measures and encouraged bidders to provide pricing alternatives that would meet the RFP's stricter levels of performance standards.

As part of the detailed evaluation process, HECO conducted an interconnection requirements study of the projects that were shortlisted. The transient analysis portion of the study had not been concluded by October 2009 (the schedule for completion of the study was June 2009), but HECO believed that the information available to the evaluation team was adequate to assess the relative technical risks associated with each project.

In October 2009, HECO selected the 70 MW Kawailoa Wind Project as part of the final award group. The other selected project was the 5 MW Kalaeloa Solar project, which had been downsized from its original proposed size of 17 MW to mitigate reliability concerns.

[20] RFP Section 2.2, p. 9.

The project developer which had been conditionally shortlisted did not address viability concerns which were the basis for its being conditionally shortlisted, was not selected for contract negotiations, and withdrew its proposal. The other shortlisted project, like the Kawailoa Wind Project was located on the north shore of Oahu and was in effective competition for the limited available transmission capacity on HECO's 46 kV transmission system. It was not selected for contract negotiations because the Kawailoa Wind Project was evaluated as being superior on a combined price and non-price basis in the detailed evaluation. Moreover, HECO determined that adding to the Company's transmission capacity would be unduly expensive and time consuming in the context of the 2008 Renewable Energy RFP. Several weeks later, the IO submitted a report to the Commission regarding this stage of the RFP process.[21]

3. Kawailoa Project From Final Award to Execution of PPA

Power contract negotiations began with First Wind in early 2010. At HECO's and the IO's request, First Wind provided a project schedule (this would allow tracking of the development of the Kawailoa project, including permitting). HECO planned to conduct the interconnection study specific to First Wind's 70 MW proposal under the assumption of use of battery storage. First Wind informed HECO that First Wind was investigating using different wind turbines from the ones initially proposed for the project. First Wind was also conducting on-site wind testing using meteorological towers that had been installed, which in turn affected the decision on the type of wind turbines to utilize. In July 2010, First Wind narrowed down the type of turbines being considered to three and provided data on two of the turbine types to HECO for the interconnection requirements study ("IRS") evaluation. However, some of the data provided was not considered adequate by Black & Veatch, HECO's interconnection study consultant. A preliminary draft IRS based on the original planned wind turbine generators was provided by HECO to First Wind in August 2010. Late in 2010, First Wind informed HECO that it would be using Siemens 2.3 MW wind turbine generators.

First Wind also informed HECO that the meteorological testing it had conducted indicated that energy output from the proposed facility would be much less than originally projected. Pursuant to a response from HECO (and at the suggestion of the IO), First Wind provided in April 2011 updated energy output (and capacity factor) information based on updated wind resource information and use of the Siemens 2.3 MW wind turbines.

At approximately the same time, HECO informed First Wind (and the IO) that as a result of technical studies performed in connection with the Big Wind Project HECO no longer required that First Wind install a battery energy storage system ("BESS") in connection with the proposed facility. HECO stated that it desired to finalize a PPA with First Wind

[21] Report of the Independent Observer on Hawaiian Electric Company's Selection of the Final Award Group—Renewable Energy RFP, Docket No. 2007-0331 (November 13, 2009). Subsequently, the non-selected bidder with the north shore project initiated a mediation process with HECO, with the IO serving as mediator pursuant to Section 1.8 of the RFP and Section V of the Competitive Bidding Framework. While the mediation did result in HECO providing some additional information to the bidder regarding its non-selection, the mediation process did not result in a mutually satisfactory outcome.

without the BESS and at the proposed pricing scenario adopted by First Wind without the BESS. First Wind responded that it was unable to stand by that price, largely due to the lower energy output associated with the project based on on-site wind data collection, and offered a substantially higher price than originally offered for this scenario. In addition, First Wind indicated that removal of the BESS requirement would add time to their design work and would create problems for their schedule which was predicated on obtaining Commission approval of a PPA, financing, and starting construction by year's end. First Wind indicated that delay also impacted their ability to obtain its planned federal tax credit benefits, which was the Treasury grant in lieu of the Investment Tax Credit.

Under current law, a wind energy developer could obtain from the United States Treasury a grant of 30 percent of the qualifying capital cost of a wind turbine project in lieu of the 30 percent investment tax credit ("ITC") if construction were to be commenced by the end of 2011 and the wind turbines placed in service by the end of 2012.[22] The ITC, itself, is an alternative to the Production Tax Credit ("PTC"), which allows owners of wind projects a tax credit currently at $21/MWh (with an annual inflation adjustment) for a period of 10 years from when the wind turbines are placed in service. Under current law, both the ITC and PTC require for eligibility that wind turbines be placed in service by the end of 2012.[23]

The technical studies which HECO referenced are described in the Oahu Wind Integration and Transmission Study: Summary Report published by the National Renewable Energy Laboratory in November 2010 as part of the Hawaii Clean Energy Initiative.[24] As indicated in the report, HECO had been conducting generator studies to increase the ramp rates of HECO's existing generating units to accommodate more renewable energy on the system.[25] Improvements to dynamic response were being developed that would provide sufficient regulating capability to allow 500 MW of wind and 100 MW of solar PV energy to be integrated into the Oahu electrical grid without constraining wind farm ramping and with minimal curtailment.[26] Improvements to HECO's energy management system were also recommended and increasing the operational flexibility of HECO's baseload reheat units was also studied. These studies, as a whole, and Black & Veatch's assessment in February 2011 that a BESS was not needed due to voltage issues with the Siemens wind turbines, led to HECO's decision—communicated to First Wind and the IO in April 2011—that a battery energy storage system would not be required to be installed by First Wind.

In early May 2011, First Wind indicated to HECO the price it was willing to charge for the 69 MW/70 MW proposal without a BESS, which represented a very material price

---

[22] Section 1603 of the American Recovery and Reinvestment Tax Act, as amended by Section 707 of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 provides for the U.S. Treasury Department to make payments to wind developers in lieu of the ITC for plants placed in service in 2012 and which meet other applicable requirements. The Treasury Department has provided specific guidance regarding those requirements. http://www.treasury.gov/initiatives/recovery/Pages/1603.aspx.

[23] Under the American Recovery and Reinvestment Act, Congress allowed wind projects to elect the ITC for projects with in-service dates in 2009-12. See 26 U.S.C. § 48(a)(5)(C)(i). Also, the PTC, was extended so that projects with a 2012 in-service date are eligible. 26 U.S.C. §45. A wind developer may elect the ITC or the PTC, but not both, and a developer that elects the ITC may not elect the Treasury cash grant and vice versa.

[24] http://www.nrel.gov/wind/systemsintegration/pdfs/2010/owits_summary_report.pdf ("NREL Summary Report")

[25] NREL Summary Report at 9.

[26] *Id.*

increase over the initial proposal. Shortly thereafter, HECO decided, after consultation with the IO, that it would ask First Wind and the next, highest ranked short listed bidder for refreshed pricing and updated proposals. This step was taken consistent with Section 4.8 of the RFP, which provides that if negotiations with the highest ranked bidder or bidders "indicate that HECO is unlikely to successfully negotiate acceptable terms with the Bidders within the time period allotted for negotiations and after review with the IO, HECO reserves the right to put negotiations on hold with the Bidder and focus on negotiations with a lower ranked Bidder."

On May 24, 2011, HECO sent letters both to First Wind and the next ranked bidder seeking refreshed pricing for the RFP pricing scenarios that would not require battery storage as well as updated information on their project proposals. Pricing scenarios were sought with respect to ability to meet deadlines for federal tax incentives. Each bidder was told that HECO was allowing other bidders a similar opportunity. First Wind was informed that HECO might move forward with negotiations with other bidders who originally had lower ranked bids in accordance with Section 4.8 of the RFP.

In early June, HECO received updated proposals from First Wind and the other bidder followed up by some proposal revisions and responses to information requests from HECO. HECO, in consultation with the IO, determined that the First Wind proposal was preferable based on an evaluation considering both price and non-price factors. In early July, HECO informed First Wind that it had decided to continue PPA negotiations with respect to its proposed 69 MW project without a BESS (the project was now designed for 30 2.3 MW Siemens wind turbines).

In July and August 2011, HECO and First Wind met and teleconferenced on an expedited basis to reach agreement on the commercial and technical terms of the PPA. Key issues were the price-related terms based on First Wind's opportunity to qualify for desired federal tax credits, the allocation of risk if qualification for tax credits were not met, and milestones for performance. First Wind expressed a strong concern that it could not place the project in service by the end of 2012 to qualify for the ITC if it were to build the interconnection facilities on HECO's side of the point of interconnection, subject to HECO approval, and proposed that HECO build these facilities and charge First Wind for the cost. Conceptually, HECO agreed with the concept and recognized that it would need to complete those facilities in the fall of 2012 in order for First Wind to commission its turbines and place them in service by the end of 2012 to qualify for the ITC.

The resulting PPA contains the following key commercial features:

- First Wind has agreed to pay in advance for HECO to design the HECO interconnection facilities on a monthly basis;
- "Step Down Pricing" reflects the economics of First Wind's qualification for the ITC (the ITC is preferable to the PTC due to the high cost of building in Hawaii relative to the mainland and the relatively low capacity factor of the project):[27]

[27] Due to the passage of time, qualification for the cash grant, which requires some construction in 2011, appears to be unlikely at this time.

  - Pricing is $205.40/MWh in 2012 and 2013, with 1.5% annual escalator beginning in 2014;
  - The contract term is 20 years from the Commercial Operation Date;
  - The price is subject to adjustment based on actual interconnection costs for the HECO interconnection facilities:
    - If interconnection costs are between $17.23 million and $19.05 million, the price does not change;
    - For each $100,000 that interconnection costs exceed $19.05 million up to $20.00 million, the PPA energy rate will increase by $.075/MWh;
    - For each $100,000 that interconnection costs are less than $17.23 million, the PPA energy rate will decline by $.075/MWh;
- "Step Down Pricing" applies under the following circumstances:
  - The Commission issues an order approving the PPA on or before December 15, 2011 and HECO completes its interconnection facilities on or before September 15, 2012, as such date may be extended due to First Wind delays ("First Energization Deadline");
  - The (a) (i) the Commission issues an order approving the PPA on or before December 15, 2011 or (ii) the Commission issues an order afterward and First Wind determines to continue to pay HECO to construct the HECO interconnection facilities, and (b) and HECO completes the interconnection facilities on or before October 15, 2012, as such date may be extended due to First Wind delays; and
    - The project's wind turbines are placed in service in 2012; or
    - The project's wind turbines are placed in service after 2012 but the ITC is extended by federal law enacted on later than January 1, 2104.
- Base Pricing applies in all other circumstances:
  - Pricing is $205.40/MWh in 2012 and 2013, with 1.75% annual escalator beginning in 2014;
  - The contract term is 25 years from the Commercial Operations Date;
  - The PPA price adjustment for HECO interconnection costs is the same as for Step Down Pricing;
- Where some wind turbines qualify for Step Down Pricing and others do not, the PPA price will be adjusted proportionately and the contract term will also reflect the number of wind turbines that qualify for Step Down Pricing
- First Wind will pay $2.1 million ($30/kW * 70,000 kW) of Development Period Security, 50% of which is due upon execution of the PPA and 50% is due following issuance of a non-appealable order approving the PPA.

On September 23, 2011, HECO informed the next ranked bidder in writing that it was not selected for the final award group. Hence, the 2008 Renewable Energy RFP is effectively closed.

4. Assessment of HECO's Compliance with the RFP and the Competitive Bidding Framework with Respect to the Kawailoa Wind PPA

The RFP process took considerably longer than the schedule set forth in the RFP, which had December 2009 as the anticipated date for execution of contracts and submittal of contracts for Commission approval. The Kawailoa Wind PPA—the second of two PPAs to be executed as a result of the RFP—was executed and submitted to the Commission in September 2011. In this section of the report, we focus on HECO's compliance with the RFP and the Competitive Bidding Framework with respect to the Kawailoa Wind PPA.

As indicated previously, HECO decided in the context of the Big Wind Project, and not in this RFP, to evaluate whether grid side measures could be utilized effectively in lieu of battery energy storage installed by intermittent renewable energy developers. This was not anticipated when the RFP was drafted and approved, as Section 2.4 of the RFP suggests:

> Once the detailed evaluation of the pricing proposals are completed and verified for all Short List Bidders, HECO will perform a portfolio type analysis using complex pricing models that are intended to examine different combinations of Bidder's pricing proposals, adjusted as necessary for the various ramp rate scenarios, with and without varying combinations of utility system costs. This evaluation model and approach on conducting portfolio analyses will be reviewed with the IO before the evaluation is conducted and the results will be reviewed with the IO prior to selection of the Final Award Group.
>
> The objective of the evaluation is to select the Proposal(s) which provide the greatest value consistent with the Company's stated objectives and requirements as set forth in the RFP.

HECO told the IO in early 2009 that HECO would be conducting system integration studies as a result of the Big Wind Agreement to consider measures necessary to integrate large amounts of intermittent renewable energy into HECO's system, that such studies would not be completed within the timeframe for this RFP, and that, as a result, HECO would encourage bidders to provide price alternatives that would meet the RFP's stricter levels of performance standards. As stated in the IO's Final Award Group Report (p. 9):

> While the evaluation process differed somewhat from what was originally envisaged, the IO is comfortable that based on review of the bids the "mix and match" evaluation approach articulated in the RFP, had it occurred, would not have changed the projects selected for the award group. Moreover, HECO made clear to all bidders its preference for bids that met the stricter performance standards. Circumstances change during competitive bidding processes and it appears that HECO's approach was consistent with what appears to be government policy in Hawaii to maximize the penetration of renewable resources. HECO acted consistently with those objectives by emphasizing the importance of meeting the stricter performance standards which would likely facilitate the penetration of larger sources of intermittent renewable energy in the future.

Approximately 18 months after the final award selections were made, which included Kawailoa Wind, HECO informed First Wind that a BESS would no longer be required for Kawailoa because HECO had determined that it could manage intermittent energy more effectively by enhancing the ramping capability of its own generators as well as making other modifications.[28]. The IO was informed of this decision at the same time as First Wind.

HECO did not conduct an economic assessment as to the greater cost effectiveness of using grid side measures in lieu of developer measures, such as a BESS, to manage intermittency, as contemplated in the RFP. Nor was the IO included in any deliberations preceding HECO's decision so that the IO did not have the opportunity to advise the utility, as contemplated by the RFP and the Competitive Bidding Framework. Nevertheless, the decision to rely on grid-side measures was contemplated by the RFP as a possibility—it just took considerably longer than anticipated because it was driven primarily by the Big Wind Project rather than this RFP. Moreover, the manner in which it came into this process also differed—because the studies were framed in the context of addressing the integration of much larger amounts of intermittent energy than might have been contemplated when this RFP process was designed. Finally, it does not appear that an economic evaluation had been conducted to compare the cost of utility measures as opposed to developer measures to manage intermittency, as contemplated in the RFP.

Moreover, it took approximately six months from the time the studies were published in November 2010 until HECO informed First Wind of its decision in April 2011. While this apparently involved considerable internal deliberations as well as coordination with the IRS, the IO might have been able to press for an earlier decision if it knew that elimination of the BESS requirement was being considered for First Wind.

HECO's decision to select First Wind's no-BESS proposal created problems for the RFP process inadvertently. First Wind was able to hold to its bid pricing for its BESS proposal because First Wind could construct and operate a BESS for substantially less than was contemplated in the initial proposal which offset the fact that the projected energy output was much lower than originally anticipated. However, for its non-BESS pricing proposal, First Wind could not hold its offered price due to the fact that the wind resource was less robust than originally estimated. First Wind materially increased its price offer for the no-BESS scenario.

HECO's decision to put negotiations with First Wind on hold and to seek refreshed offers from both First Wind and the next ranked project was reasonable under the circumstances and consistent with RFP Section 4.8. HECO did consult with the IO with respect to this decision.

Upon receiving refreshed offers, HECO conducted an evaluation of the bids and decided to continue to negotiate with First Wind for the proposed 70 MW proposal. The IO had a number of questions regarding HECO's evaluation, but to avoid delaying HECO's decision since time was critical in terms of First Wind's' ability to meet the impending deadlines for federal tax benefits, the IO informed HECO that it would seek further

[28] A BESS was not needed to address voltage issues.

clarification before it were to execute a PPA. Ultimately, the bulk of the information requested and clarifications sought were provided.

HECO's decision to go forward with PPA negotiations with First Wind was not the only decision HECO could have made, but the IO is persuaded that it was a reasonable one. HECO and First Wind pursued negotiations of the PPA on an expedited basis in July, August and September. The PPA, in its final form, contained several provisions that were different from what First Wind had proposed or what was anticipated in the RFP. These provisions were driven in large part by the desire to expedite construction of HECO-owned interconnection facilities and the project itself in order that the project could qualify for the ITC, with resulting lower prices for HECO's ratepayers. For example, under Section 3.12 of the RFP, 100% of the Development Period Security of $30/kW is to be due upon PPA execution. Under the Kawailoa Wind PPA, 50% of the $2.1 million Development Period Security is due following PPA execution and 50% is due after a non-appealable Commission order approving the PPA is issued. The IO does not view this modification as material since First Wind is expected to be advancing funds for the design of the HECO interconnection facilities in excess of $1 million during the next few months while the Commission is considering whether to approve the PPA. First Wind will have at least as much dollars at risk under the agreement as negotiated as under the framework contemplated in the RFP.

Second, for Base Pricing, the contract term will be 25 years, while the RFP called for contracts with 20-year terms. Again, this was not a provision proposed by First Wind, either initially or in its 2011 refreshed pricing, but one which developed subsequently out of the contract negotiations. Apparently, the 25-year term was designed to provide First Wind with a higher net present value of revenues if Step Down Pricing doesn't apply without having as much impact on net costs to customers as compared to higher prices with a 20-year term. The PPA pricing should, in the IO's opinion, be evaluated on its merits.

The IO's summary of its monitoring of the RFP process up to the selection of the final award group is set forth in prior reports.[29] To the IO's knowledge, the IO was given the opportunity to participate by telephone on all of the negotiation sessions with First Wind following its selection to the final award group, with some exceptions toward the end of the negotiations. The IO attended most, if not all, of the contract negotiation sessions to which it was invited, the great majority of project update calls, and a number of the technical meetings. There were a variety of issues that were the subject of intensive negotiations. Both sides negotiated in good faith.

The IO raised questions with HECO as to whether First Wind's refreshed pricing (as well as that of the other bidder) was competitive with other contemporary PPAs, RPS-compliant proposals under active consideration or other RPS alternative. HECO has evaluated the levelized cost of the First Wind proposal with Step Down Pricing as being

[29] See Report of the Independent Observer on Hawaiian Electric Company's Bid Evaluation and Short List Selection Process—Renewable Energy RFP (Jan. 23, 2009) and Report of the Independent Observer on Hawaiian Electric Company's Selection of the Final Award Group—Renewable Energy RFP (Nov. 13, 2009).

$229/MWh for a 20-year term and $239/MWh for Base Pricing for a 25-year term. HECO presented the following levelized cost comparison:

- $218 - Kalaeloa Solar 2
- $225 IC Sunshine
- $220 Interisland Wind (estimated)
- $236 FIT Tier 3 PV (proposed)
- $256 Honua
- $229 Kahuku Wind

At the IO's request, HECO also provided a simplified assessment of its 2015 RPS obligations and the renewable resources with which it plans to meet its RPS obligations. The Kawailoa project is one of a number of planned resources, in addition to existing resources, that could meet HECO's 2015 RPS requirement. While if all planned resources go into service, HECO would substantially exceed its 2015 RPS requirement, typically not all plans reach fruition. HECO has decided to go forward with the Kawailoa PPA in that context as well as in the context of the more ambitious and longer term goals of the Hawaii Clean Energy Initiative.

III. Overall Assessment of the RFP and Recommendations for Improving Future Competitive Bidding Processes

The Competitive Bidding Framework provides that after the electric utility's procurement selection is completed, the Independent Observer shall provide the Commission with an overall assessment of whether the goals of the RFP were achieved, including whether the RFP attracted a sufficient number of bidders, and recommendations for improving future competitive bidding processes.[30]

A. Overall Conduct of the RFP—Structural Issues

The 2008 Renewable Energy RFP attracted an adequate number of bidders—11 in all. However, the number of conforming bids that were evaluated was substantially smaller and of those bids, the number of bids that were highly developed without substantial viability issues were even a smaller subset.

Specifically of the 11 bids which were submitted, one was disqualified because it was submitted late, was incomplete and did not contain a bid submittal fee. One proposal was

[30] Framework Section III.C.2.a.(iv). One goal—elimination of actual or perceived utility favoritism for its own or an affiliate's project—was not relevant in the 2008 Renewable Energy RFP because HECO did not advance its own project and no HECO affiliate project was proposed.

withdrawn since the bid was for a 5 MW or smaller project and the bidder preferred to seek a contract outside of the competitive bidding process.

Nine bids remained, with a total maximum capacity exceeding 1,000 MW. Of these bids, there were three bids from two bidders for the Lanai and Molokai Big Wind projects. As indicated previously, these interisland proposals were "bifurcated" and considered separately as part of the Big Wind project process before the short list was selected in December 2008. What remained were six conforming project proposals with a combined maximum capacity of approximately 300 MW. These projects were of different technologies and sizes.

A number of these projects were not very well developed, had significant project viability issues, or exhibited both characteristics. Some wind energy projects did not have a year of on-site meteorological data for the estimation of energy output or any on-site data at all. Some projects had either no evidence of site control while others had site control arrangements that had not been completely negotiated and tied down. Other projects offered technology that is not in commercial use or required a fuel supply that was not demonstrated.

Development challenges affected the four short listed projects as well as the two that were not shortlisted. The one conditionally short listed project did not provide, as HECO had requested, adequate evidence of site control or fuel supply. As it turned out, the negotiations involving the 5 MW Kaleola solar PV project were delayed because the project's site control arrangements could not be finalized at the original site and arrangements had to be made to obtain a nearby site. First Wind requested HECO to rerun its interconnection studies because it wanted to evaluate different wind turbines than originally proposed, in large part because the wind resource regime at the proposed site was less favorable. This, in turn, was the result of First Wind having only recently conducted on-site meteorological testing as none had been conducted at the time of the initial proposal.

Another feature of the 2008 Renewable Energy RFP was the extent to which a non-selected bidder expressed dissatisfaction as a result of not being chosen for a contract award, including initiating a mediation process with HECO, with the IO serving as mediator. Without addressing the merits of the issue, an underlying concern appeared to be that if this bidder could not obtain a contract through this RFP, there would not be opportunities in the relatively near future to do so.

In the IO's opinion, the issues of projects that are not well developed and developers who may have a "now or never" view of their prospects are related. Competitive bidding processes for long-term contracts for new renewable resources work best, in the IO's opinion, when there are structural incentives for developers to expend time and financial resources to develop their projects and some basis to address key questions, one of which is interconnection feasibility and expected cost. In the mainland United States, competitive bidding processes run by vertically integrated utilities (as well as some others) are generally run independently of the interconnection study process, which is generally conducted under the auspices of the independent system operators. Developers can pursue interconnection of their projects independently and in advance of efforts to obtain long-

term contracts with utility purchasers. In some states with renewable portfolio standards, such as California, renewable energy procurements are conducted periodically—every year or two. Project viability—including the state of development of a project proposal—is an important consideration in the bid evaluation. Moreover, projects that have a better characterization of their costs and which have lower cost exposure risks because they are further developed have a tendency to be more competitive than other project proposals. Finally, the risk that projects which receive contracts will not be built is substantially reduced when projects are more advanced in the development process.

Oahu, and Hawaii generally, is small in area and difficult to develop renewable energy projects, especially of a scale of over 5 MW. Because the Oahu grid is relatively small and not interconnected to other grids (at least now) there must be a strong emphasis on maintaining the reliability of the grid and utility service. Also, the human and other resources of HECO are not unlimited. How can the process be improved to attain better results?

First, in the IO's opinion, there should be a medium to long-term plan to conduct renewable energy resource procurements so that developers will have reason to believe that if they invest time and funds to develop their projects that there will be an avenue to obtain a contract with HECO. The upcoming 200 MW renewable energy RFP for renewable energy delivered to Oahu is a good opportunity.

Second, HECO should more highly emphasize the importance of key project development milestones in the RFP. In the 2008 Renewable Energy RFP, HECO had site control as a threshold requirement, which could be satisfied by a letter of intent on the site. Site status was also part of the non-price evaluation. In the next RFP, more emphasis should be given on demonstration of site control, including requiring a definitive site control agreement as a condition of obtaining an executed contract.

In the 2008 Renewable Energy RFP, wind project developers were asked to provide a summary of all collected wind data at the proposed site, other pertinent wind data and a projection of gross and net annual energy production. Fuel/energy supply status was identified as a non-price evaluation criterion. In the future, there should be greater emphasis on developer's obtaining on-site wind energy data. The industry norm in terms of minimum data is one year. While that may or may not be reasonable in a Hawaii context, HECO should place greater emphasis on the importance of having on-site wind data for wind energy projects. If there are barriers to installing meteorological towers on Oahu to collect on-site data, they should be identified along with potential solutions.

As indicated previously in this report, the RFP process did not go forward as expected due to the intervening agreement on the part of HECO, the Big Wind project developers and various governmental agencies to pursue 400 MW of off-island projects with an underwater cable to Oahu outside of the 2008 Renewable Energy RFP process. This affected the detailed evaluation stage of the RFP process after short listing and prior to determination of a final award group. The studies HECO had planned to conduct in 2009 to assess the advisability of utilizing grid-side measures in lieu of developers meeting higher performance standards by installing battery energy storage devices or by other means were deferred and incorporated into the studies associated with the Big Wind

project. When HECO determined, approximately 18 months later, based on the studies conducted in connection with the Big Wind project that it was preferable not to require First Wind to include battery storage, the impact was further difficulty, complexity and time to conclude the RFP process. In the future, there should be better follow through by HECO in the conduct of competitive bidding processes based on the original plan.

There were several aspects of the RFP process that HECO's plans were especially advantageous. By conducting a Solicitation of Interest ("SOI") in advance of the RFP (September 2007), HECO gave considerable advance notice to renewable energy developers regarding the planned preparation and issuance of the RFP (subject to Commission approval), providing the opportunity for prospective developers to develop their projects and prepare well-developed bids. As part of this process, HECO also identified areas on its system in Oahu that, at least based on a high level analysis, had transmission capacity for the connection of renewable energy projects. This advice appeared to be helpful to prospective bidders. In addition, HECO announced its intention that it would not advance a utility bid or affiliate bid in the upcoming RFP "to simplify and expedite the proposed RFP process."[31] The IO agrees that HECO's decision, ultimately ratified with the RFP itself, not to advance its own proposal or that of an affiliate did simplify the RFP process.

Another key issue is the time it takes to conduct the interconnection study process and the relationship between that process and the time it takes to conduct an RFP process and the effectiveness of both combined processes. This matter is addressed below.[32]

B. The Interconnection Process

HECO's strategy for informing prospective developers of areas on their system that seemed to be suitable for additional generation and conducting technical studies regarding particular proposals was twofold. First, the SOI provided a high-level overview of potential generation sites on the island. HECO identified the north shore as being an area with favorable wind resources with thermal limits of each of the two 46 kV circuits in the area as having the potential to support 50 MW each. The other potential area for new generation on Oahu that was identified is in the Kahe and CIP region. A preliminary review of the thermal limits on the 138 kV circuits indicated a potential for supporting approximately 100 MW of additional generation. Detailed technical assessments would need to be conducted in the course of the proposal evaluation process as part of an Interconnections Requirements Study ("IRS"). The SOI was incorporated into the RFP as an appendix. Also incorporated as an appendix to the RFP was HECO's Rule 19 tariff, which governs the interconnection process in association with competitive bidding processes under the Framework. HECO provided prospective bidders with the opportunity to ask written questions regarding technical or operational questions

[31] Letter dated September 28, 2007 from William A. Bonnet, HECO to the Hawaii Public Utilities Commission, Docket Nos. 03-0253 and 03-0372, p. 2 n. 4.

[32] Richard Gross, President of Richard C. Gross, P.E., Inc., an electrical engineer that specializes in assisting developers of renewable energy and other generation projects in the interconnection study and construction process, has assisted NEO from a technical standpoint for the duration of the 2008 Renewable Energy RFP. Mr. Gross has participated in the preparation of the aspects of this report pertaining to the interconnection process.

pertaining to the Company's system and provided written answers, which were reviewed by the IO.

Aside from the type of information described above that HECO made available in connection with the SOI, the RFP, in accord with the Rule 19 tariff, provided for (among other things):[33]

- Bidders were required to include in their pricing proposals all costs between their proposed generating facility and the proposed Point of Interconnection;
- The identification of the required facilities located between the proposed Point of Interconnection and the Grid Interconnection Point would be the subject of the IRS for short-listed bidders;
- Bidders were required to submit estimates for these costs for HECO's evaluation, which estimates would be subject to adjustment upon completion of the IRS;
- HECO would make high-level unitized interconnection cost estimates available to bidders to assist them in preparing their estimates;
- Bidders were required to bid a $/MWh amount per $100,000 of actual interconnection costs.
- Additional technical information was required of short-listed bidders.

In the bid evaluation process, a high level review of the extent to which the proposals conformed with the Company's performance standards, impact of need for additional transmission required due to the project, location of the proposed project on the grid, and impacts on system operation and system stability was conducted.[34] Under the Rule 19 tariff, HECO could conduct interconnection requirements studies only on those projects that were short listed.

In accordance with the RFP and Rule 19 tariff, HECO designed an IRS for all of the short listed projects combined in one study. However, there were several issues with the design of the study. First, under the Framework and the Rule 19 tariff, the IO's responsibilities include monitoring and advising on utility implementation of the RFP process.[35] However, HECO designed the interconnection study without providing it to the IO for review or otherwise consulting with the IO. Second, the design of the study did not include one of the possible scenarios involving substantially more generation added to one of the north shore circuits than communicated to bidders as being realistically available. HECO thought it intuitive that it this alternative was unrealistic in terms of cost and time to permit and construct the facilities that would be required. At the IO's request, HECO provided a high level written assessment of the issue, which indicated a very high estimated cost.[36]

---

[33] Section 3.11 of the RFP.

[34] Section 4.4.2 of the RFP.

[35] Section A.3 of the Rule 19 tariff provides: "As established in the Framework, the duties and responsibilities of an Independent Observer (IO) include, among other duties and responsibilities, reviewing and monitoring the Company's communications, methods and implementation of this Tariff, the RFP and related IRS processes."

[36] The specifics of this issue are addressed in the confidential appendix to the IO's Final Award Group Report, pp. 5-7.

The combined IRS took months longer than expected and was not totally complete when HECO made the selection of the final award group in October 2009. HECO indicated that the principal reason for delays was due to delays in receipt of technical information from the bidders or at least the type and quality of information sought by HECO and its consultant. [It also appeared that HECO's consultant was tardy in some respects.]

After the final award group was selected, the interconnection studies that were project-specific also took a very long time. One of the reasons for the delays were the change of wind turbines, and consideration of multiple wind turbines, in the case of First Wind. However, even with these circumstances, HECO was tardy on its side, due, it appears, to the tardiness of its IRS consultant, internal HECO staff, the relationship between HECO staff and the IRS consultant or a combination of these factors.

With regard to future competitive procurement processes, we have several recommendations:

- The design of interconnection studies should be subject to review by the IO;
- A schedule for the interconnection process (in Excel or other format) should be developed by HECO specifying all known steps to the process, responsibilities, including review and acceptance responsibilities, persons responsible and their contact information, and timeframes, which should be available both to the IO and to the bidder or bidders whose projects are being studied (subject to appropriate blinding where necessary in terms of the bidder or bidders). The schedule should be updated periodically as steps in the process are completed or modified or new steps are added. The schedule should specify the information required of bidders, the schedule for providing the information, and the relationship between these undertakings and HECO's obligations to conduct the IRS. In this manner, the interconnection study process would be more transparent to all concerned and easier to monitor.
- There should be a process by which if a bidder fails to provide required information according to the schedule without good cause, HECO could, with the review and consent of the IO, suspend and ultimately terminate consideration of the project proposal.
- HECO should have a process that allows prospective bidders to request a feasibility study of proposed generation projects in advance of the RFP. The feasibility study should be a high-level study of the thermal and voltage impacts of a particular generation project capacity and type at a specific interconnection point. The study should identify system constraints and provide planning-level cost estimates for HECO system modifications that would be required to interconnect the proposed project. The process should identify the technical information to be provided by prospective bidders, a base fee to perform the study, a mechanism to adjust the fee based on actual costs, and the expected schedule to complete the study. The process should also include a scoping meeting with the prospective bidder to discuss the project, review the technical data, and identify alternative interconnection points as needed. In this manner, prospective bidders would be able to have a better understanding of the feasibility and cost of interconnecting new generation to HECO's system. As an example, the study results could

influence a prospective bidder to reduce the capacity of a project to lower the interconnection costs.

- HECO should allow prospective bidders to hire HECO-approved consultants to perform interconnection studies. This would provide prospective bidders the opportunity to have greater influence on the timing and management of the study process. HECO could specify the scope of the studies, review the results, and request additional study cases as necessary to ensure a complete and thorough interconnection analysis.

It seems that at least part of the cause for delay of the interconnection study process is HECO's oversight and management of its outside consultants. Another issue involves the coordination among different departments within HECO. HECO should exert greater effort in these areas.

Finally, HECO should consider applying the same type of schedule accountability process we have recommended for the interconnection process for other aspects of the RFP process, including bid evaluation and PPA negotiations.

C. Issues Related to the IO's Ability to Effective Monitor the RFP Process

As indicated earlier, there have been issues associated with the IO's ability to monitor various aspects of the RFP process. As HECO has had more experience with the RFP process, its performance in this regard has generally improved.

One simple improvement is to set forth in the RFP itself that it is a bidder's responsibility to copy the IO on all communications pertaining to the RFP (unless the IO indicates it is unnecessary to do so). This would include a copy of the bid itself as well as all email and other electronic communications. This requirement is typical in a number of RFP processes and would be helpful here as well.

Another process improvement—internal to HECO and the IO—would be for HECO to conduct periodic conference calls with HECO staff from relevant departments with the IO invited to attend. This would allow the IO to better monitor the HECO bid evaluation and IRS process, identify potential issues, and facilitate resolution. In other RFP processes where there is an independent evaluator or monitor, these types of conference calls are either routinely held or held at the most active parts of the RFP process. This IO has found them to be productive.

D. Other Recommendations

The 2008 Renewable Energy RFP had a two-stage process prior to PPA negotiations: (1) a process to determine which projects would be shortlisted; and (2) a process to determine which projects would be selected for contract negotiations. Other competitive bidding processes generally only have a short listing stage, with the utility exercising discretion to select the best projects for contract negotiations. HECO should consider eliminating the final award group selection process as a means to expedite bid evaluation and selection for its next competitive bidding process.

HECO should consider conducting a survey regarding the effectiveness of its competitive bidding processes. It is generally helpful to obtain multiple perspectives on the RFP process, particularly the perspectives of participating bidders or even developers who considered bidding but decided not to bid. Often, surveys are conducted after RFP processes, either by the party conducting the RFP itself or by a consultant retained for that purpose. The survey might also include the active participants in HECO as well.

Finally, we have some suggestions regarding the relationship between the IO, the Commission, and the utility. We understand that certain persons have raised the question as to how the IO can be independent if HECO selects the IO, subject to Commission approval, contracts with the IO, and pays the IO for its services.

The Framework is clear that the IO is to report to the Commission, although the IO may have a contract with the utility and the utility pays for the IO's services. The best way to provide assurance that the IO is responsive to the Commission and independent of the utility, in our opinion, is for the Commission to be more involved in the selection process of the IO and for there to be ongoing dialogue between the Commission's representative(s) and the IO. With regard to selection, there could be an informal process where the Commission staff is directly involved in consultation with the utility in determining which firm (or person) to recommend to the Commission for approval as IO. In our opinion, this is a far more important factor than whether the utility or the Commission is the contracting party and payor under the contract. It may be easier and quicker for the utility to be the contracting party.

Another issue that has arisen during this RFP has been unexpected developments which have resulted in additional work for the IO to perform than originally contemplated, which has caused costs to be incurred by the IO above the original IO contract cost cap, which, in turn, has required Commission approval. This has caused significant additional non-productive effort on the part of HECO, the IO, and the Commission to support and approve contract amendments for relatively small additional sums of money. If IO contracts continue to be between the utility and the IO, our recommendation is that these types of matters should be resolved by the IO and the utility and should not require Commission approval.

IV. Conclusion

For the reasons set forth herein, New Energy Opportunities, Inc., the IO for HECO's 2008 Renewable Energy RFP, is of the view that HECO's negotiation and execution of the Kawailoa Wind PPA was materially in accord with the RFP, as approved by the Commission, and the Framework. In addition, the goals of the 2008 Renewable Energy

RFP were met in large part, although there is ample room for future improvement. This report contains a number of suggestions to improve future competitive bidding processes.

Dated: October 4, 2011

Respectfully submitted,

NEW ENERGY OPPORTUNITIES, INC.

By: 

Barry J. Sheingold
President
New Energy Opportunities, Inc.
10 Speen Street
Framingham, MA 01701
Phone: (508) 665-5888
Email: bjs@newenergyopps.com